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Value Creation and Value Capture Alignment in Business Model Innovation: A Process View on Outcome-Based Business Models

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Industrial manufacturers are innovating their business models by shifting from selling products to selling outcome-based services, where the provider (manufacturer) guarantees to deliver the performance outcomes of the products and services. This form of business model innovation requires a profound yet little understood shift in how value is created, delivered, and captured. To address this research gap, our study examines two successful and four unsuccessful cases of this shift. We find that effectiveness in business model innovation hinges on the three process phases that unfold in collaboration with the customers: value proposition definition, value provision design, and value-in-use delivery. We also find that that success is determined by the alignment of specific value creation and value capture activities in each phase: identifying value creation opportunities—agreeing on value distribution in value proposition definition, designing the value offering—deciding on the profit formula in the value provision design, and finally refining value creation processes—regulating incentive structures in the value-in-use delivery. Our process model contributes to the literature and practice on business model innovation by providing a thorough understanding of how alignment of value creation and value capture processes is ensured, whilst paying special attention to their interdependence and the interactions between provider and customer.

Introduction

> *Selling an outcome is not the same as selling a product or service; it is a totally different offer, and the composition of the offering means that the whole business model towards the customer needs to change. You are changing the way value is created by guaranteeing radically higher performance. The delivery process needs to change since you are now responsible [for the outcome] and profit is also more risky, uncertain and aligned to the customer. So, this [shift] is not something you can do alone. —Portfolio manager, Connectcorp*

Business model innovation sits at the top of the agenda for most industrial firms, and it has garnered a strong interest in the management literature as well (Foss and Saebi, 2017; Massa, Tucci, and Afuah, 2017; Ritter and Lettl, 2018). A business model describes how an organization creates, delivers, and captures value (Osterwalder and Pigneur, 2010; Parida, Sjödin, and Reim, 2019; Teece, 2010). One of the most important forms of business model innovation today is the shift from selling products to selling outcome-based services (Baines et al., 2017; Foss and Saebi, 2017; Tuli, Kohli, and Bharadwaj, 2007; Visnjic, Jovanovic, Neely, and Engwall, 2017). When selling outcome-based services, a provider assumes responsibility for the performance outcomes of the products and services (e.g., engine functioning) and accepts a penalty for any shortcomings (e.g., engine breakdown; Grubic, 2018; Visnjic et al., 2017). Thus, the shift to outcome-based service represents a high-gain as well as a high-risk business model innovation strategy (Fang, Palmatier, and Steenkamp, 2008; Jacob and Ulaga, 2008; Kohtamäki, Parida, Oghazi, Gebauer, and Baines, 2019).

This shift is often accompanied with an "opening up" of the business model where the steps that a provider and customer take to ensure they create (i.e., lower life-cycle costs) and capture (i.e., value distribution) value need to be carefully redefined (Chesbrough,

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Lettl, and Ritter, 2018; Saebi and Foss, 2015; Visnjic, Neely, and Jovanovic, 2018). Yet, navigating this process of redefining value creation and value capture and shifting relational roles and responsibilities is a daunting task that is often at odds with the existing modus operandi of traditional business-to-business relationships (Sjödin, Parida, and Wincent, 2016). For instance, the provider, who used to make money on product, maintenance, and spare parts, will now have to consider these items as costs with revenues depending entirely on the delivered outcomes. The customer, for its part, will have to accept a much higher degree of dependence on the provider. Furthermore, this redefinition rarely happens in one step. The challenges, needs, and requirements likely evolve throughout the business model innovation process. Indeed, prior literature has recognized the importance of understanding these processual and temporal aspects of business model innovation and has called for further research on this subject (Berends, Smits, Reymen, and Podoynitsyna, 2016; Foss and Saebi, 2018).

The process of business model innovation leading to outcome-based services is pertinent to two ongoing dialogues in the literature: servitization and business model innovation. The servitization literature has begun to recognize the challenges involved in this form of business model innovation as it evolves from a simple to a more advanced service portfolio (Parida, Sjödin, Lenka, and Wincent, 2015; Ulaga and Reinartz, 2011; Visnjic Kastalli, Van Looy, and Neely, 2013). While this literature stream is steadily advancing, few servitization studies have gone as far as to investigate the business model innovation process for outcome-based services (Grubic and Jennions, 2018), the most advanced form of service provision (Baines et al., 2017; Visnjic et al., 2017). Furthermore, recent studies have called for further research on how providers engage in "collaborating with customers throughout the innovation process" (Randhawa, Wilden, and Hohberger, 2016, p. 767). As the interactions between the provider and customer are more complex in outcome-based services than any other, this context may help us grasp the relational dynamics better (Aarikka-Stenroos and Jaakkola, 2012; Petri and Jacob, 2016; Sjödin et al., 2016).

From the perspective of the business model literature, there is also an important knowledge gap concerning the design and implementation of value-creation and value-capture processes across organizational boundaries (Chesbrough et al., 2018; Saebi and Foss, 2015). For instance, the existing research on open business models has mostly concentrated on value-creating processes, directing less attention to complementary value capture processes (Chesbrough et al., 2018; Desyllas and Sako, 2013). Moreover, scholars have recently called for

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increased focus on the alignment between value creation and value capture processes in interorganizational relationships (Chesbrough et al., 2018; Ritter and Lettl, 2018; Sjödin, Parida, Kohtamäki, and Wincent, 2020). Alignment essentially concerns the "appropriateness" of the various elements/processes (i.e., creation and capture) in relation to each other (Chorn, 1991), and while it is often mentioned, this concept is seldom studied in detail in the business model innovation context (Kranich and Wald, 2018; Ritter and Lettl, 2018). How to achieve this alignment may well be a particularly fruitful theme to study in the complex and risky context of outcome provision where the potential for value creation and value capture is evolving over time, potentially creating more opportunities for misalignment between the provider and the customer.

This study seeks to address these research gaps by exploring how providers and customers ensure the alignment of value creation and value capture processes in business model innovation for outcome-based services. To fulfill this purpose, our study draws on the rich case-study data from two successful and four unsuccessful cases of business model innovation during the shift to outcome-based services. As a result, this study contributes to the growing body of literature on business model innovation (e.g., Foss and Saebi, 2017; Massa et al., 2017; Visnjic et al., 2018).

Our contribution can be summarized in four points. First, we develop a process framework aimed at business model innovation for outcome-based services that unfolds in three phases: value proposition definition, value provision design, and value-in-use delivery. Thus, we complement existing studies by focusing specifically on value creation and value capture activities as they unfold throughout the business model innovation process. Second, this study unpacks the mechanics of the alignment between value creation and value capture throughout the business model innovation process (Appleyard and Chesbrough, 2017; Randhawa et al., 2016; Sjödin et al., 2016). Third, the study explores the relational dynamics between the provider and customer as they realign their value creation and value capture perspectives. Here, we underscore the importance of an open business model innovation perspective, given that our findings strongly suggest that the alignment of value creation and value capture is not a provider-centric requirement but a joint endeavor.

Theoretical Background

Business Model Innovation and Alignment of Value Creation and Value Capture Processes

Business model innovation is crucial for industrial manufacturers (Adrodegari and Saccani, 2017; Foss and Saebi, 2017; Raddats, Kowalkowski, Benedettini, Burton, and Gebauer, 2019; Teece, 2010) and it has received considerable attention in the literature on management. While a business model represents the "design or architecture of the value creation, delivery, and capture mechanisms" of a firm (Teece, 2010, p. 172), business model innovation represents "designed, novel, non-trivial changes to the key elements of a firm's business model and/or the architecture linking these elements" (Foss and Saebi, 2017, p. 201). The academic literature on business model innovation, whilst continuing to evolve, needs further development (Foss and Saebi, 2017). There are a number of crucial theoretical and empirical questions that remain unresolved, such as: How does business model innovation unfold? What are the processes, key activities, and customer interactions that mark out the journey?

The customer is often put at the center of common business model frameworks (e.g., the value proposition in the business model canvas), yet there is little understanding of how customers and providers agree to jointly create value and to apportion it so that each party receives its fair share (i.e., value capture). In particular, the dominant focus in business model innovation process research is still on the internal issues of the firm such as the core organizational characteristics that facilitate (e.g., experimentation, top management support) or hinder (e.g., resource inertia, cognitive frames) the process of business model innovation (e.g., Berends et al., 2016; Berglund and Sandström, 2013; Demil and Lecocq, 2010; Doz and Kosonen, 2010; Teece, 2010). In contrast, this study follows the line of recent research (Chesbrough et al., 2018; Foss and Saebi, 2017) that argues specifically for an increased focus on the external perspective, with specific reference to understanding the nature of interactions with customers in shaping business model innovation processes. For example, Macdonald, Kleinaltenkamp, and Wilson (2016, p. 97) place the customer in a sharp focus in defining value as "all customer-perceived consequences arising from a solution that facilitate or hinder the achievement of the customer's goals."

Thus, rather than viewing value creation and value capture as provider-centric or customer-centric processes, there is considerable merit in taking a relational or a dyadic view (Chesbrough, Vanhaverbeke, and West, 2006; Dyer, Singh, and Hesterly, 2018).

In addition, prior literature on business model innovation has tended to focus on the antecedents and preconditions rather than on how business model innovation in terms of its value-creation and value-capture potential unfolds in practice. We build on the recent literature in defining *value creation* as the processes aimed at increasing value generation (Chesbrough et al., 2018; Dyer et al., 2018; Visnjic et al., 2018). For example, shifting the business model to outcome provision means that both provider and customer are involved in customer-specific value-creation activities where the provider's expertise and customer's operational knowledge are instrumental in delivering higher use value (e.g., optimized operations) to that customer over time (Chatain, 2011; Rabetino, Kohtamäki, Lehtonen, and Kostama, 2015; Sjödin et al., 2016). This value-in-use perspective (i.e., value created through customer use) is a critical distinction from the traditional value-in-exchange perspective (i.e., at the point of sale). It can be argued that providers focused on the value-in-use perspective possess greater potential for long-term competitive advantage as they are more aligned to customers (Chesbrough et al., 2018). Value creation refers to those sets of activities that enable providers and customers to progressively realize this higher value (Chesbrough et al., 2018).

We define *value capture* as the process of securing profits from value creation and the distribution of those profits among participating actors such as providers, customers, and partners (Chesbrough et al., 2018; Dyer et al., 2018). Thus, successful value capture calls for the design of appropriate governance mechanisms to ensure that value creation is greater than the cost of realizing that value and that the value surplus is distributed fairly among partners (Chesbrough et al., 2018). However, it is important to note that value capture extends beyond contractual and legal agreements (Reim, Parida, and Sjödin, 2016). For example, when partners are focused on value-in-use as the basis for value capture, trust between partners becomes necessary support for control-based relationships centered on contracts and other legal agreements (Chesbrough et al., 2018; Reim, Sjödin, and Parida, 2018). In short, value capture processes involve activities that enable providers and customers to determine how the additional value created should be distributed between provider and customer.

Furthermore, arguably the critical point of business model innovation is not only designing the value creation and value capture processes but ensuring they are adapted and aligned to each other (Foss and Saebi, 2018; Ritter and Lettl, 2018). Following the line of discussion developed in the literature, the alignment would ensure the "appropriateness" of the various elements of value creation and value capture in relation to one another (Chorn, 1991; Ritter and Lettl, 2018). In particular, recent literature suggests that business models with a congruent design encapsulating value creation, delivery, and capture will ultimately lead to better results in business model innovation (Kranich and Wald, 2018). However, only a few studies have actually presented concrete insights into how alignment is created and maintained. As conditions change (Reim et al., 2018), achieving alignment is a continuous practice. Thus, a discussion of the alignment process requires both identifying the state of alignment and monitoring the dynamics of misalignment and potential realignment. Consequently, developing a greater understanding of how value-creation and value-capture activities can be aligned in the context of business model innovation is needed.

Finally, prior literature has focused for the most part on business model innovation in the business-to-consumer (B2C) context, studying well-known examples such as Tesla, Apple, and Southwest Airlines (Foss and Saebi, 2017; Zott, Amit, and Massa, 2011). However, we assert the need for an increased emphasis on business model innovation in a B2B setting. B2B is a very significant part of the economy and highly relevant because value creation and value capture in the provider–customer relationship is often more interactive and interdependent. From this perspective, focusing on industrial manufacturing as one of the core B2B contexts may well provide additional insights to augment the business model innovation literature (BMI).

Servitization and Outcome-Based Services as a Domain for Understanding Business Model Innovation

In their literature review, Foss and Saebi (2017) identify servitization as a significant research stream

in business model innovation where further investigation is needed. Our own review of business model literature, servitization literature, and the literature streams related to servitization such as integrated solutions, hybrid offerings, PSS, and digital servitization suggests a gap in knowledge concerning how business model innovation processes unfold. More specifically, only a few studies (e.g., Ng, Ding, and Yip, 2013; Visnjic et al., 2018; Visnjic Kastalli et al., 2013; Witell and Löfgren, 2013) have explicitly focused on value creation and value capture, and not a single study has done so from a process perspective. Moreover, studies of the shift to outcome-based services are rare. Table 1 describes the key indicative studies in the servitization and BMI with respect to value creation and value capture as well as the process perspective.

Admittedly, several authors have outlined the processes that explain how various forms of advanced services or solutions are developed, implemented, and delivered, which may also provide important insights into business model innovation (e.g., Aarikka-Stenroos and Jaakkola, 2012; Sawhney, 2006; Sjödin et al., 2016, 2020; Tuli et al., 2007). A synthesis of these prior studies reveals three overarching phases of the process as: (1) definition, (2) design, and (3) delivery. The definition phase involves articulating customer problems (Petri and Jacob, 2016) and then creating an understanding of the customer's broader operational needs (Aarikka-Stenroos and Jaakkola, 2012; Sawhney, 2006; Tuli et al., 2007). The design phase entails design, modification, or selection of products and service elements to ensure they fit into the customer's overall operating environment, as well

Table 1. Key Indicative Studies in Servitization and Business Model Innovation (BMI) Literature with Respect to Value Creation and Value Capture, as Well as the Process Perspective

Focus: Author(s)	Type of Study	Insights on Value Creation and Value Capture Alignment	Process Perspective
Servitization			
Aarikka-Stenroos and Jaakkola (2012)	Qualitative	No	Yes
Ng et al. (2013)	Qualitative	Limited focus on value creation and value capture processes	No
Petri and Jacob (2016)	Qualitative	Limited focus on value creation and value capture processes	Yes
Sawhney (2006)	Conceptual	Limited focus on value creation and value capture processes	Yes
Sjödin et al. (2016)	Qualitative	No	Yes
Sjödin et al. (2020)	Qualitative	Limited focus on value creation and value capture processes	Yes
Töllner et al. (2011)	Qualitative	No	Yes
Tuli et al. (2007)	Qualitative	Limited focus on value creation and value capture processes	Yes
Visnjic et al. (2018)	Qualitative	Limited focus on value creation and value capture processes	Yes
Visnjic Kastalli et al. (2013)	Qualitative	Limited focus on value creation and value capture processes	No
Visnjic et al. (2017)	Qualitative	Limited focus on value capture processes	No
Witell and Löfgren (2013)	Qualitative	Limited focus on value creation and value capture processes	No
Business model innovation (BMI)			
Appleyard and Chesbrough (2017)	Conceptual	Yes	No
Berends et al. (2016)	Qualitative	No	Yes
Chesbrough et al. (2018)	Conceptual	Yes	No
Demil and Lecocq (2010)	Conceptual	No	Yes
Desyllas and Sako (2013)	Qualitative	Yes	No
Foss and Saebi (2018)	Conceptual	Yes	No
Massa et al. (2017)	Conceptual	Yes	No
Randhawa et al. (2016)	Conceptual	Yes	No
Ritter and Lettl (2018)	Conceptual	Yes	No
Saebi and Foss (2015)	Conceptual	Yes	No
Teece (2010)	Conceptual	Yes	No
Current study	Qualitative	Yes	Yes

as defining contractual agreements (Sjödin et al., 2016; Tuli et al., 2007). Finally, the delivery phase is related to delivering and installing the solutions, participating in the set-up arrangements, and working in the operational environment to ensure delivery of the advanced service (Aarikka-Stenroos and Jaakkola, 2012; Sjödin, Parida, and Lindström, 2017; Tuli et al., 2007). The dominant focus in these studies (e.g., Tuli et al., 2007) seems to be on understanding how value is created rather than how it is captured. Although recent research points to the importance of agile co-creation processes (Sjödin et al., 2020) and relational governance for value capture in digital servitization (Sjödin, Parida, and Kohtamäki, 2019), we still lack knowledge concerning the activities of value creation and value capture, and the roles that the provider and customer play in aligning these for business model innovation (Appleyard and Chesbrough, 2017; Randhawa et al., 2016; Sjödin et al., 2016).

To summarize our perspective on this theoretical background, we argue that the research community's understanding of how business model innovation processes unfold is still limited and in need of further insightful research. Specifically, there is a dearth of studies addressing the alignment between value creation and value capture in business model innovation (Chesbrough et al., 2018; Saebi and Foss, 2015). We argue that the context of outcome-based services is particularly relevant to study such processes and may provide important insights into the literature on servitization and business model innovation.

Methods

In order to understand how providers and customers align value creation and value capture for outcome-based business model innovation, we adopted an inductive case-study design. Case studies make it possible to mobilize multiple observations on complex relational dynamics (Eisenhardt and Graebner, 2007; Gioia, Corley, and Hamilton, 2013) and are particularly useful in developing inductive theory and the development of fine-grained insights into a theoretically novel phenomenon (Edmondson and Mcmanus, 2007).

Unlike other studies that ignore the customer perspective, we adopt the suggestion of Tuli et al. (2007) and Gama, Sjödin, and Frishammar (2017) to collect dyadic data (i.e., both the customer and the provider view) on the evolution of the relationship, enabling a deeper understanding of the interactive relationships relevant to business model innovation in the outcome-provision context (Yin, 2017). Our approach responds to the call of Chesbrough et al. (2006, p. 294) to study "dyads of innovation partners" involving respondents from both sides of the relationship in order to provide validation for and contextual richness to the analysis, and to better understand "the search, negotiation, contractual and implementation phases."

Case Selection and Sampling Strategy

Our sample included dyads of Sweden-born, globally active providers, and customers engaged in outcome relationships. These firms represent diverse industries—namely manufacturing, telecom, and process industries—which provide an opportunity to contrast various industrial perspectives on the business model innovation process. Building on recommendations made by Glaser and Strauss (1967), we opted for theoretical sampling in order to select cases that would illuminate the business model innovation processes involved in outcome relationships (Eisenhardt and Graebner, 2007; Suddaby, 2006). In this theoretical sampling, we engaged in extensive dialog with providers who had an experience of providing advanced services in order to develop an inventory of specific outcome-based service cases. As we sought to gain deeper insights into the business model innovation process and how it unfolds, we searched for cases that were initiated by the provider over the last 5 years and where access to key informants was assured so that rich insights into the experience of business model innovation could be shared. This generated a list of 20 potential outcome relationships.

To justify the generalizability of our findings, we followed the guidelines of Eisenhardt (1989) in selecting cases from different industries and product categories from our initial sample of 20 relationships. More specifically, three criteria guided our selection of cases. First, we ensured the collection of dyadic data from both provider and customer to obtain an unbiased view of the process. Due to practical reasons and, in certain cases, because of limited interest from the customer organizations, we had to eliminate some cases. Second, a key selection criterion was the ability of the provider and customer to vividly describe the relationship trajectory and

Table 2. Background information on the customer (C)–provider (P) relationships (R) studied

Relationship	R1		R2		R3	
Firm	Minecorp (C)	Equipcorp (P)	Ironcorp (C)	Equipcorp (P)	Minecorp (C)	Solutioncorp (P)
Employees	4900	16,000	4100	16,000	4900	132,000
Main products/ services	Metal materials	Mineral process equipment	Iron pellets	Mineral process equipment	Metal materials	Control system and mechanical equipment
Data collection	Semi-structured interviews, internal and external documentation, site visits, workshops	Semi-structured interviews, internal and external documentation, site visits, workshops	Semi-structured interviews, site visits, workshops, industry presentations	Semi-structured interviews, internal and external documentation, site visits, workshops	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations
Interviewee role(s)	4—Project manager, R&D manager, senior project manager, procurement manager	4—Sales manager, project manager, R&D manager, senior project manager	3 - Operations engineer, R&D manager, project manager	4—Sales manager, project manager, R&D manager, senior project manager	3—Procurement manager, IT manager, head of automation	4—R&D manager (2), key account manager, development manager
Outcome-based service business model innovation	*Innovative pressure filter system providing guaranteed performance for dewatering of minerals or ore concentrates. This critical function represented a bottleneck in production and, through co-development efforts, product life was extended by 50%, production costs reduced, and annual processing capacity increased. Innovative delivery process and new revenue model needed to be developed and agreed upon.*		*Innovative slurry pump solution to provide guaranteed performance by reducing maintenance costs and maximize uptime. Objective of minimizing total cost of ownership by reduction in energy consumption, wear of the product, costs of services and parts over the contracted period. New service delivery process, risk and revenue sharing engagement and high demands on availability guarantees were needed to be developed and agreed upon.*		*Digitally enabled ventilation system solution building on a digital platform approach that captures the location of each person and asset in the mine, measures temperature and air quality, and regulates fan and air flow through analytics to optimize air quality. Introduction of new partnerships, agreeing on distribution of roles and responsibilities between partners and highly risky outcome guarantees.*	
Relationship	**R4**		**R5**		**R6**	
Firm	**Forestcorp (C)**	**Machinecorp (P)**	**Minecorp (C)**	**Equipcorp (P)**	**Telecorp (C)**	**Connectcorp (P)**
Employees	4000	600	4900	16,000	25,400	117,000
Main products/ services	Pulp and paper products	Forest harvesting machines	Metal materials	Mineral process equipment	Network access and telecom services	Network equipment and software
Data collection	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations	Interviews, external documentation, industry presentations	Semi-structured interviews, internal and external documentation, site visits, workshops, industry presentations

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Table 2. Continued

Relationship	R4		R5		R6	
Firm	Forestcorp (C)	Machinecorp (P)	Minecorp (C)	Equipcorp (P)	Telecorp (C)	Connectcorp (P)
Interviewee role(s)	6—Head of technology, project manager (2), business development manager (2), technician	5—Service innovation manager, production manager, sales manager, analytics manager, regional sales manager	5 - Procurement manager (2), head of procurement, R&D manager, head of sourcing	5—Technology manager, head of R&D, key account manager, sales manager, product support manager	2—Business operation manager, business director	5—Business development manager, VP business development, business operation manager, sales manager, R&D manager
Outcome-based service business model innovation	*Proactive service solution contract to make the machine ownership simple by providing customers with lower costs based on guaranteed engine hours. In collaboration, provider and customers develop a tailor-made solution, which includes inspections, proactive services, customized training, and on-demand follow-up. A key innovation was to deliver continuous improvements based on operational data.*		*Performance-based mill lining solution works on a revenue model of cost-per-ton. The goal is to ensure the availability of the grinding circuit and to maximize valuable production time. Focus on extending service intervals and reducing time, while maximizing the lifetime of the mill linings. Revised ways of how value is created, delivered and captured.*		*Cost per data contract enables provider to engage in co-development mode where it is paid by its ability to manage user traffic and optimizing the network operation. Provider used its knowledge of network management and superior product capabilities to organically develop the network as the customer base increases. Continuous innovation and optimization are core to this cost and revenue sharing deal.*	

provide in-depth information about the relationship and its key activities, supported by essential documentation and background information. Third, we sought to select more innovative (i.e., new to the firm) and complex examples of the outcome-based services enabled by digitalization (e.g., the use of digital technologies) in order to capture cases that exemplified more significant shifts to business models. In selecting more innovative cases, we were able to study processes where both provider and customer had to manage novel value-creation and value-capture arrangements. Finally, we intentionally selected both successful and unsuccessful cases. Studying both successful and unsuccessful cases mitigates some of the concerns relating to studies plagued by "survivorship bias" and "halo effects" (Grönlund, Sjödin, and Frishammar, 2010).

Our selection procedure resulted in a final sample of six relationships. This allowed us to compare and contrast the experiences of business model innovation and the evolving value-creation and value-capture processes across relationships. In particular, our sample of six cases was large enough to extract theoretical insights into the data (Eisenhardt, 1989; Glaser and Strauss, 1967; Strauss and Corbin, 2015). Table 2 describes the key characteristics of the six outcome relationships and the firms studied.

Data Collection

Data for the present study were gathered primarily through individual, in-depth interviews with participants in the six outcome relationships. We developed a semi-structured interview tool for our interviews. The unit of analysis was the business model innovation process for the outcome relationship between provider and customer. Therefore, we undertook interviews with numerous managers from both the customer and the provider sides of the relationship. Data on the relationship trajectories were collected in a retrospective and inductive way, allowing for focused data gathering (Leonard-Barton, 1990). During the interviews, the respondents were instructed to reflect on the process of realizing the outcome-based service business model. For example, respondents were asked to consider questions relating to broad themes such as: How did the process of designing and implementing the outcome-based service evolve? What happened in this phase? What were the key challenges? How did you design the

outcome to create the most value? (i.e., value creation) How did you agree on the contractual details and profit sharing? (i.e., value capture). What were the key challenges and what did you learn? The interview was customized to each of the relationships studied and continuously updated to capture interesting themes as they emerged (Grönlund et al., 2010). Departures from specific questions were permitted and were often encouraged; accordingly, the format of the interviews was adapted to pursue interesting and particularly relevant facets as they emerged (Eisenhardt, 1989). In seeking answers to these overarching questions, we encouraged informants to base their answers not only on the relationships studied but also on their broader experience from other relationships. Thus, empirical comparisons were facilitated. The interviews ranged from 1 to 3 hours, with an average duration of 80 minutes.

In total, the results are based on 49 interviews with both strategic- and operations-level personnel from provider and customer companies across the six relationships (22 from the customers and 27 from the providers). The interviews were mainly conducted by the first and second authors of this study. Interviewees were identified by snowball sampling where key informants were asked to recommend people who had an active role in the development of the business model for the outcome-based service in different phases. To capture a multifaceted view of the process, we interviewed various functional roles from the providers and customers (e.g., business developers, production managers, and technical support staff) engaged in the discussions at various stages. Most of the informants had prior experience in many domains (e.g., R&D and marketing), were actively involved in ongoing projects, and had substantial experience from working together with partners to create and define new advanced service solutions or outcome-based services. They were able, therefore, to present a much more diverse set of experiences than their current positions signaled.

In order to avoid respondent bias that could lead to confusion about cause and effect relationships (Leonard-Barton, 1990), we triangulated our data by applying multiple data collection techniques, including multiple interviews, secondary data, and a review of documents (Jick, 1979). We performed document studies that entailed reviewing company reports, agreements, and project documents (e.g., evaluations of key customer problems, internal assessments, PowerPoint presentations) in order to validate and provide context to our respondents' views, thus enabling empirical triangulation. To increase reliability and enhance transparency as well as the possibility of replication, a case-study protocol was constructed along with a case-study database. The database included case-study notes, documents, and analysis.

Data Analysis

This study used a Gioia approach for its data analysis, which provides ways to identify patterns in a large and complex data set (Gioia et al., 2013; Strauss and Corbin, 2015). Moreover, it offers a means to effectively and accurately identify links within analytical themes. Through a series of iterations and comparisons, it is possible to identify themes and overarching dimensions so that an empirically grounded framework can be developed. In doing so, we followed a three-step approach similar to that described in the recent literature (e.g., Ben-Menahem, Von Krogh, Erden, and Schneider, 2016; Sjödin, Frishammar, and Thorgren, 2019).

The first step in our data analysis centered on an in-depth analysis of raw data (e.g., interview transcripts). This analysis focused on reading every interview several times, each time marking phrases and passages related to the overarching research question. By coding the common words, phrases, terms, and labels mentioned by respondents, it was possible to identify first-order categories of codes, which expressed the views of the respondents in their own words. For example, informant statements such as: "We need to understand what can be the gains from this, not only for them but for us. I think these discussions are critical in the early phases" were coded under the label "Prioritizing win-win opportunities".

The second step of the analysis sought to discover links and patterns within the first-order categories. This iterative approach led to the formation of second-order themes that represent theoretically distinct concepts created by combining first-order categories. Our analysis identified six second-order themes, which were on a higher level of abstraction compared to the first-order categories. These themes relate to various approaches enabling value creation and value capture in a business model innovation process for outcome provision. In accordance with validity claims in the literature, the themes were further refined based on reviewer comments, insights

into prior literature, and data from interviews and secondary sources such as internal documents, presentations, and newspapers (Kumar, Stern, and Anderson, 1993). Moreover, internal validity tests were conducted to ensure greater accuracy within the emergent themes. This was achieved through correspondence and follow-up discussions with selected respondents.

The next step involved the generation of aggregate dimensions that represented a still-higher level of abstraction in the coding; here, we used insights into the literature to guide the formation of theoretically rooted dimensions. Thus, the aggregate dimensions that were generated built on the first-order categories and second-order themes to present a theoretically and practically grounded categorization. Based on the data, we constructed three aggregate dimensions corresponding to phases in business model innovation, creating an overall data structure (see Figure 1). Table 3 offers additional representative quotations to support the data structure.

As a final step, we engaged in theorizing the logic and linkages across aggregate dimensions, second-order themes, and first-order categories. As we sought to uncover how business model innovation unfolds and how firms manage value creation and value capture in the shift to outcome provision, we assessed successful and unsuccessful instances for each phase. For example, firms unable to secure commitment for the outcome-based service concept often failed to communicate the potential value to key stakeholders or failed to define how value gains would be shared (captured) among partners. Similarly, a dissolved outcome-based service contract agreement was often the result of a failure to adjust the value-capture mechanisms and ensure fair returns as the relationship and the technology evolved. This practice of comparing successful and unsuccessful cases allowed further refinements and helped us to generate the framework that explains how the business model innovation process unfolds (see Figure 2).

A Process for Business Model Innovation for Outcome-Based Services

In this section, we present a process for business model innovation for outcome-based services that emerged inductively based on the analysis of the six cases studied. We present our findings in three parts, each corresponding to one of the three phases that emerged from the analysis: value proposition definition, value provision design, and value-in-use delivery. Following the presentation of the findings, we offer the resulting framework and elaborate on it.

Phase 1: Value Proposition Definition

During the initial phase, the provider and customer worked jointly to define the value proposition by progressively achieving alignment between *identifying value creation opportunities* and *agreeing on value distribution*. A central goal was to identify a corroborated concept (i.e., mutually agreed) for the outcome-based

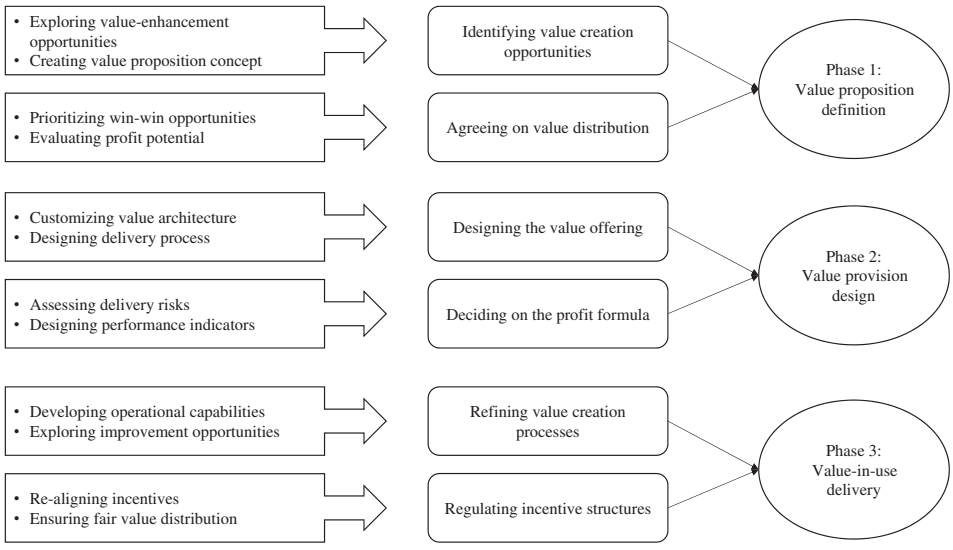

Figure 1. Data Structure

Table 3. Representative Supportive Data for Each Second-Order Theme

Dimensions and Themes	First-Order Codes and Representative Quotations
Phase 1: Value proposition definition	
Identifying value creation opportunities	*I think a good start to any process is asking the customer 'where are your bottlenecks?' I think customers are always more receptive to performance-based services when they know they have a problem. Then we know that they are willing to pay and that we would be creating value by solving their problems.* Key account manager, Solutioncorp. R3
	It is a balancing act during the early phases. You want to be concrete with the solution but also want to have openness to revise the concept. This is necessary in case the concept is not financially viable or agreements are not supported by top management during the implementation. Senior project manager from Equipcorp. R5
	Quite often the problems we are trying to address are highly complex and multifaceted. This calls for jointly working with the right people that have the correct positions in each side of the relationship to break down the problem into subparts. Much effort is needed in this phase, otherwise we can end up missing critical details, and that can be a big problem. R&D manager, Connectcorp. R6
	Failure quotation: *We were never really able to define the concept concretely enough so that the customer could sign off on the new contract. Internally, there was also a lot of concern, if we are able to deliver on the value promised. After a lot of front and back discussion, we finally agreed not to pursue this new service idea with our customer. Many feared that we could lose face with the customer, in addition to financial loss.* Sales, Equipcorp. R2
Agreeing on value distribution	*We can have good initial research discussions, but it seems, as soon as we start speaking about how to collaborate and commercialize, we need to talk business and revenue, and the discussions can be blocked. I think we have realized a need to have a broader perspective on how we can capture value.* Business model researcher, Connectcorp. R6
	I think a critical challenge here is that when they are looking for cost cuts and we are looking for value improvements, and perhaps these are not always the same. I mean we are offering solutions and assuming risk from the customer and that is a different value and more expensive than a standard offer. Service development manager, Machinecorp. R4
	A successful outcome-based contact has to have a simple view on what measures to use for allocating payment. For example, we used a pay-per-capacity contract, which enables us to optimize planning and forecasting, manage capacity planning, coverage variation and data volume variation and provides a better way to calculate reward and penalty. Business operation manager from Connectcorp. R6
	Failure quotation: *We were not involved in the discussion until the end. It felt that the operational function and supplier teams have developed an idea without taking any consideration of the procurement process into account. When we started to look into the ideas for collaboration, we quickly realized that there was not enough competence and support to change the product and service contract into an outcome-based service arrangement.* Procurement manager, Minecorp. R1
Phase 2: Value provision design	
Designing the value offering	*We must make our customers understand that it is about value co-creation. This sounds like it would be obvious and simple but it's not easy to sit down and look at the risks and the level of service to be on and explain the value to the customer.* Research manager, Solutioncorp. R3
	Roles and responsibilities between different levels of provider and customer organizations need to be detailed. This is especially important in the context of delivery of solutions as we need to enter customer operations and make sure that our agreed terms are met. Quite often relationships work well at top management level but, at operational level, there are conflicts and disagreements. Senior project manager, Equipcorp. R5
	There was a huge roadblock, from the operational level initially, to prove that this does not work, that we could not get this new way of working to perform in delivery. … So, we had to do a careful analysis of how we should set up a contract like this operationally what are the processes, service levels etc. Senior manager, Connectcorp. R6
	Failure quotation: *I think they feel it is an issue that you let things out and don't have control of it. Of course, other discussions will be about what level this service should be on. Who will be responsible for what? And what things need to be solved then? Then we're back, technically it's no problem. It's probably more about daring and daring to do and that's the challenge.* Research manager, Solutioncorp. R3
Deciding on the profit formula	*Each mine is unique and suppliers need to adapt their solution to our needs. However, before we sign any contracts, we need to truly believe that cost-revenue analysis clearly shows that procuring outcome-based contacts will be superior to just buying a machine and service contract.* Procurement director, Minecorp. R5
	The baseline for the operational risks needs to be re-evaluated. Now suddenly other risks need to be considered, which were not relevant during the previous [product-based] setting. To address this new condition, we reworked with risks analysis and also tried to spread the risks across contracts to promote quick learning about what works and what does not work. Key account manager from Equipcorp. R5
	Behavioral risks are very important to consider in this context. When we start to offer an outcome, the norms of the customer and provider relationship changes and, at least during the first year, both sides need to reevaluate risks carefully and make sure that they do not disrupt the new collaboration. Service innovation manager, Machinecorp. R4
	I think what really enables us to form profitable relationships is that we need to have trust and a willingness to assess the market situation and find an agreement that enables both parties to gain now and in the future. Procurement manager, Minecorp. R5

Table 3. Continued

Dimensions and Themes	First-Order Codes and Representative Quotations
Phase 3: Value-in-use delivery	
Refining value creation processes	*I think it is easy to see the relationship value here, when we increase output, they make more money and we make more money. Trust is important, but I think key to success is that we also need to continue looking for valuable improvements.* Key account manager, Equipcorp. R5
	"[Minecorp] constantly keeps us on our toes and challenges us to reach new records, but it's a challenge we welcome with open arms." Excerpt from internal report stated by Regional service manager, Equipcorp. R5
	Failure quotation: *The main issue with the new contract was that the supplier could not deliver the value that they promised. Basically, we have a much more expensive contract, but we could not see how we gained any additional value compared to the cheaper old service contract. It was evident that the supplier delivery organization was not ready to manage the improvements and support enhancement in productivity of our machine operators. So, we cancelled all new service contracts within the first six months.* Head of technology, Forestcorp. R4
	In a mine, nothing is constant, the conditions around the equipment are changing and suppliers need to work jointly with operation staff to ensure that promised outcomes are delivered. The room for error is quite low, if the machine comes to a standstill, we can lose millions each day. So, we jointly define and redefine responsibilities among staff to ensure that performance outcomes are achieved day in, day out. Plant manager, Minecorp. R5
Regulating incentive structures	Failure quotation: *We worked together with [Forestcorp] when we developed the solution and, in the end, they started to compare our solution to traditional service contracts and we didn't get any more business from them. Because they couldn't understand the added value, even when we showed it and everything, but they didn't get it.* Service manager, Machinecorp. R4
	Failure quotation: *I think it is clear that an unbalanced agreement where only one party profits will not survive for long.* Technical director, Forestcorp. R4
	Everyone thinks it is obvious that you should sell the value, but the value is only interesting for six months and, after that, it is taken for granted, and then it's not easy to pay or get paid for it anymore. Research manager, Solutioncorp. R3
	A key dimension during an on-going contract period has to do with changing internal and external conditions. We found that our cooperation with customers was very positive because we were promoting flexibility in delivering the outcomes. For example, three years into the contract, we introduced a technological upgrade to the equipment, which was necessary to meet increasing productivity. So, more than half way into the contract, we revised the indicators and increased productivity by another five percent with only marginally increased costs over the life of the equipment. Key account manager, Equipcorp. R5
	I think a key to the success of this contract was that we focused our attention on selling and delivering the outcomes which enables [Telecorp] to make more money … This means that the contract was always based on the utilized capacity, not the installed capacity, and this required constant monitoring. VP business development, Connectcorp. R6

service, which can create significant value and ensure that the value thus created can be profitably captured by both provider and customer.

Identifying value creation opportunities means that both provider and customer were required to focus on clearly explaining the potential for increased value creation that an outcome-based service makes possible. First, informants reported that working jointly in *exploring value-enhancement opportunities* provided a good starting point for this step. The key was discovering how the transformation to outcome provision can create new opportunities for value creation by letting the provider assume greater responsibility for the customer's operation through the design of innovative solutions. This involved conducting a holistic mapping of the customer's operational processes and provider´s potential technological solutions in order to identify potential areas of improvement. For example, one respondent at the provider organization, Solutioncorp (R3), explained how they had engaged in a series of dialogues focused on pinpointing problem areas that their digital solutions could address. Moreover, identification of improvement opportunities could be facilitated by locating bottlenecks—critical functions that constrain operational throughput—through an analysis of operational data. Identifying such bottlenecks was often a good starting point in seeking to align incentives in this early phase. A sales manager from Equipcorp (P) elaborated:

> *We know the ability of our machine and, based on production data, we could see that the filter solution was working at 40% output. This would mean that something was wrong with the process and how the equipment was operated. … We explored this business opportunity with the customer and offered them a guarantee of output in a performance-based contract.*

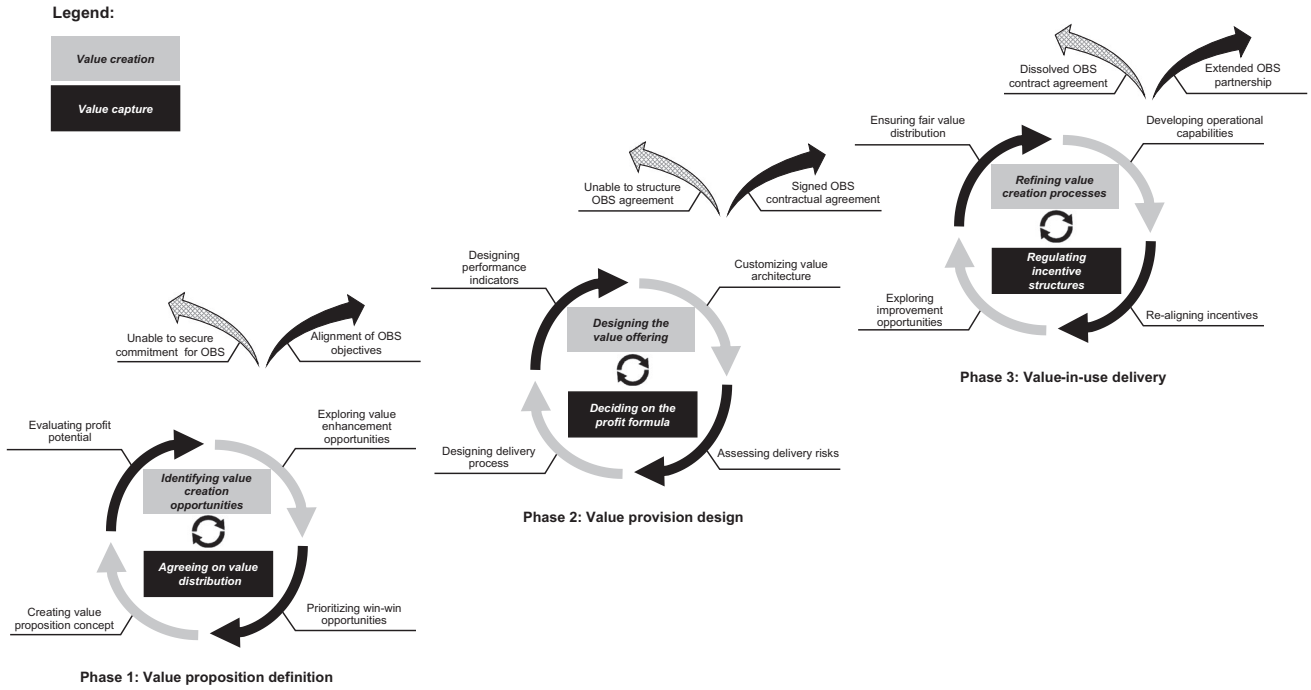

Figure 2. A Process Framework of Value Creation and Value Capture Alignment in Business Model Innovation Relationships

In addition, parties focused on *creating a value proposition concept*. This meant clarifying how a new outcome-based service would create additional value and earmarking the subtasks that enable this. For example, informants described how they dissected an overarching problem into subproblems in collaboration with the provider's key account manager, development team, end users, and other stakeholders in the customer's operation. Greater emphasis was placed on identifying the underlying technologies, products, and service activities that can constitute the outcome-based service, and on clarifying what value the proposed concept can generate (e.g., which pain points or problem areas need to be resolved). Many informants underlined the importance of keeping these discussions reasonably open by focusing on the value-creation potential of the concept in this early phase. The challenge often centered on defining the outcomes in a way that was specific enough to meet diverse requirements but broad enough to allow the provider to propose innovative solutions that lower the total cost of outcome provision over its life cycle. A key logic was to avoid specifications that do not directly influence the target outcome since too many restrictions can hinder creativity and innovation. In any event, the outcome should deliver a concrete concept for the outcome service. One of our interviewees, a product specialist manager at the provider organization, Equipcorp (R5), explained:

> *After several iterations and open dialogs, we finally reached some common ground for moving forward with the business opportunity. In practice, we had created a rough concept of how the new business relationship would work and perform. The concept enabled improved communication about the solution, and we could now start agreeing on the benefits.*

As part of the activities related to *agreeing on value distribution*, both provider and customer focused on the terms under which the value created would be distributed between them. It was interesting to note that these activities were already evident in the first phase of discussions in successful cases only. However, specifying exactly how the value is to be captured (i.e., in financial terms) did not dominate during this phase either. Too much emphasis on contractual details can run the risk that partners will become mired in negotiations before a clear idea of the value that can be generated has materialized. Moreover, some discussion of how to share value-capture benefits proved to be essential. For instance, a key step entailed *prioritizing win-win*

opportunities. This involved analysis of how different outcome-based service ideas play out in terms of benefits and costs for the parties. Ideas were prioritized, selecting the most feasible and potentially profitable ones. Naturally, these evaluations were plagued by great uncertainty given the lack of information on how the outcome provision would actually function. Nevertheless, informants highlighted the ways of making initial estimates so that a basis for discussion was provided. For example, an R&D manager at the provider organization, Equipcorp (R5), described how its simulation software was able to predict how the mill solution would play out in terms of life-cycle costs under different service configurations. The key was finding a solution that builds on the strengths of both partners and provides the potential for mutual profits. The chief technology officer at the customer organization, Telecorp (R6), explained:

> *We recognized that through outsourcing we could capitalize on the strengths of our partners. Connectcorp's in-depth domain knowledge, economies of scale and ability to attract talent are all areas which can really benefit our business. Our overall objective [with this relationship] is to combine cutting-edge technology with capital and operational expenditures optimization and grow our market share profitably.*

The other activity involved *evaluating the profit potential*. Here, the gains arising from the selected outcome-based service concept were assessed (e.g., reduced life-cycle costs, increased operational throughput) to formulate a view on what profits could be shared. The key challenge here was to identify performance gains that are aligned with the key stakeholders on the customer side so that their commitment is strengthened and their input on value capture potential is secured. For example, when an outcome was central to customer operations, diverse interest groups or stakeholders from the customer side such as senior management—from operations, R&D, and procurement—and end users were involved. Quite often the value of potential gains varied widely, with some categorized as "must have" and others as "nice to have". For example, informants from Minecorp disclosed that, when procuring smart ventilation systems, the focus was placed on achieving a certain level of "air quality," but the question was under which conditions and at what cost. Can we reduce our requirement for air quality in certain areas of the mines to lower total costs? In this discussion, it was also evident that having staff from Solutioncorp on-site would be a "nice to have" condition, but this was later excluded from the contract due to the high cost and low profit potential, with priority given instead to rather remote monitoring and control functions. Thus, evaluating profit potential is usually quite an interactive practice in order to understand the underlying reasoning and the gains emphasized by both parties. However, formulating these requirements was a challenge as described by the R&D manager of the provider organization, Connectcorp (R6):

> *We find that customers are typically totally unaware of how to formulate the KPIs that are needed for outcome service-level agreements such as availability levels and functions. … This needs to be a joint work and a more relational approach in defining the KPIs and sharing of risks since no-one has really done it before and no-one knows how it will really play out.*

Phase 2: Value Provision Design

The second phase focused on designing the value provision and included activities related to *designing the value offering* and *deciding the profit formula* to agree on a mutually beneficial business model. This phase involved the concrete design of equipment and service activities in terms of scope and allocation, and the formulation of delivery-process descriptions and expected roles so that the defined outcome-based service was translated into a signed contract. This phase placed higher demands on the ability of partners to negotiate so that the benefits and the alignment of value-creation and value-capture activities could be realized.

In this second phase, *designing the value offering* was a key theme that respondents emphasized. A more detailed specification of how value is to be created and delivered to customers and the role that each party should play was considered obligatory for the successful outcome of this phase. As one of the core activities, we identified the need for *customizing the value architecture.* This entailed much more detailed discussion on how value is to be created,

the specific functions required, the duration, and how the performance should be measured. More specifically, it concerned jointly selecting the optimal configuration of product, service, and digital components (e.g., sensors and operational analytics) to ensure that the final offering is customized and addresses the unique demands of the customer. For example, a key account manager at Solutioncorp described how increasing the reliability of a piece of equipment by 10% could be achieved by installing sturdier physical components or by increasing the number of service intervals to evaluate the condition of the product. The first option would simultaneously increase energy consumption and component costs, whereas the second option would increase the service cost and require extensive and ongoing maintenance work, which could disrupt production. Thus, this step often required a degree of creative problem solving to jointly find configurations that best met the requirements of both sides. For example, the key account manager at the provider organization, Equipcorp (R5), explained:

> *A central issue with construction of the outcome contract is the different options that need to be identified, evaluated and selected. The room for customization is high but with every choice comes certain benefits and trade-offs.*

Second, we found that a vital task in this phase involved *designing delivery processes.* A key part of this task was articulating and specifying the value creation activities intrinsic to the business model in an outcome agreement with a clear view of the underlying technological solutions and operational roles. This demanded careful analysis of how the outcome-based service solution would be delivered in practice. Mapping out the responsibilities that both provider and customer will have during the delivery phase was one of the key factors in a successful outcome. This involved defining the overall logic and goals of the outcome-based service, translating the logic and goals into the full scope of activities needed to deliver them, allocating responsibilities to the operators, and specifying new delivery routines. For example, Connectcorp found that many of its internal routines had to be updated to fit the required work stipulated in its outcome-based service agreement with Telecorp (R6). Interestingly, this joint work extended beyond the clauses and measures of the standard outcome contract to include softer aspects such as trust and norms to be embedded in the relationship. A service manager at Connectcorp, the provider organization, described the importance of having a good relational approach to the design activities:

> *As roles and responsibilities change in the outcome relationships, the likelihood of conflicts increases. It helps if the relationship between customer and supplier is not about pointing fingers but rather about achieving common goals. … The customer was very open to us and gave us the design freedom to develop the most effective solution that we could deliver.*

Another key task for value capture in this phase was *deciding on the profit formula.* This meant taking the initial estimates from the first phase further by clearly defining how and under what conditions each party would profit from the agreement. Specifically, agreements must be formulated on how costs and revenues will flow under defined operating conditions and in various scenarios. In essence, such a mechanism defined the governance structure that will facilitate a smoothly operating outcome-based service. During this phase, value-capture activities became more quantifiable and concrete as operational routines were fleshed out. Thus, issues such as risk assessment, revenue flow and cost structure, and the development of appropriate outcome indicators became central subtasks.

A vital task in this phase was *assessing the delivery risk.* This means evaluating a variety of potential risks that can cause the outcome-based service to fail during operation and mitigating them when necessary. As the relationship between provider and customer changes from product to outcome provision, many risks were transferred to the provider (e.g., equipment downtime, high maintenance costs) and new risks had to be considered (e.g., opportunistic customer behavior). Yet, customers also faced significant risks since they were now dependent on the performance of their provider. Informants described how different tools such as scenario planning were deployed to identify critical risks and the means to mitigate them. For example, Connectcorp had a three-phase model for evaluating the risk of new business models for outcome-based services, which they described as critical given the size and complexity of this type of agreement. Our informants intimated that the raised risk perspective

posed a considerable challenge in reaching an agreement, thus making this activity a critical one. For example, a senior project manager at the customer organization, Ironcorp (R2), said:

> *I think, from the customer perspective, one of the key things that needs to be considered is the risk perspective. What are the risks if we invite a supplier to take over some of our processes? What if they fail? How can this be managed? I think these issues are critical to resolve, if we are going to succeed with co-creation over a longer time period.*

Another key value-capture activity in this phase was *designing performance indicators*. At its core, this activity was very much about aligning the financial incentives of the contract so that both parties were positioned to profit. Therefore, the contract and indicators needed to be specified in a way that holds out the prospect of a win-win outcome for both parties rather than putting the emphasis solely on payment conditions. Specifically, several respondents from the successful organizations noted that formulating complex contracts can undermine trust and the natural inclination of provider and customer to cooperate. However, it is critical to delineate the criteria for delivery performance. For example, during the interaction between Forestcorp and Machinecorp, a few performance indicators were discussed and agreed on—such as availability of equipment, uptime guarantees, cubic tons harvested, and response time on services—yet the operational rules concerning performance (e.g., responsibility for operational processes) were not clearly defined. Thus, the contractual incentives were not properly aligned in the detail required to meet the overarching goals of partners (which was later a cause of failure in phase 3).

The practice of designing performance indicators can thus require quite complex and iterative interactions. For example, several respondents asserted that interaction to develop a more intimate understanding of partner operations was critical in order to clarify what performance indicators should be included in the contract. To give an example, informants at Minecorp intimated to us how essential it was to ensure that very specific material properties (e.g., granularity, moisture content) were achieved. Traditionally, this would not have been an issue as the customer would have been responsible for the operation but, under an outcome-based service, sharing an accurate understanding of this tacit knowledge is vital. For example, issues such as the scheduling of maintenance stoppages were critical elements to agree on in this phase. Nevertheless, focusing on the simplest types of indicators that generate value for the customer (and often the customer's customer) was often a matter of great debate and iteration. Simulating the cost and revenue flows under various operational conditions (i.e., scenario analysis) could be a way of ensuring that the contract contains an appropriate profit formula. The key account manager at Connectcorp (R6), the provider organization, explains:

> *A lot of effort is placed on measures and indicators, but we know from previous experience that indicators can be manipulated. So, working jointly, we identified a simple operational indicator, i.e., quality minute, which captures a price parameter closer to what the operator delivers to the end user. So, we basically understood what customer values are really important to capture.*

Phase 3: Value-In-Use Delivery

In the final phase of value-in-use delivery, activities are centered on *refining value-creation processes* and *regulating incentive structures* between the provider and the customer. At this stage, the official deal has already been signed but now much depends on how the two parties collaborate in delivering their promises and how they respond to evolving customer requirements. The informants from successful companies cautioned us that a key logic to consider is that no real value has been created until the outcome-based service is in full operation and delivering value-in-use as intended. Thus, the partners needed to work together over time to ensure that the value is realized; they had to set in motion an operation that runs smoothly and is capable of resolving any teething problems with implementing the solution. Furthermore, as outcome-based service contracts can last several years or even decades, it was vital that the partners focus on achieving new value improvements over time by engaging in continuous fine-tuning, upgrading, and optimizing the performance of the solution.

During this phase, we found that efforts directed to *refining value-creation processes* were important not only for the purposes of implementation but also to

improve and extend the scope of value creation over time. Informants confirmed that this was a key phase where the provider and customer worked together "almost as a married couple," as they called it, to ensure optimal outcomes of the "open" business model. Informants were convinced that a key to success was *developing operational capabilities* from the very start of the contract. The need to develop operational capabilities fell on both provider and customer and was a vital but, in unsuccessful cases, an underestimated activity. For providers, this activity often entailed hiring and/or training new staff and developing routines for servicing and operating the solution. It often included training and skills in the use of digital technologies to monitor, predict, and optimize performance. From the customer perspective, a key requirement was that end users in the customer organization interact with the solution in the prescribed manner.

For example, many informants asserted that value could only be realized if operators/production management learned to use the equipment in the "right way." They would often need to unlearn old routines and become proficient in using innovative practices aligned with the new contractual arrangement. For example, Equipcorp ran an extensive training program, based on simulators, lectures, and online tools, that was designed to ensure the best use of their equipment. Indeed, training end users could well be a key means of ensuring a win-win outcome, since better handling of the equipment tends to improve operator efficiency and reduce the need for maintenance, thus saving money for both parties. A technical operations manager at Forestcorp (R4), the customer organization, emphasized the importance of focusing on the end users:

> *[The provider] does not have the data to compare; we have better knowledge of production data, so we know the key issues. Normally, it's not the machines but the operators we want the manufacturers to understand that, don't just sell the machines, but get the operators to make the best use of the machine. I think the big issue is how can we lower the logging cost but still get more money, so we may need to add value.*

Furthermore, to secure the creation of value, informants argued that a key to success was *exploring improvement opportunities* over the duration of the contract. As the delivery phase can last for several years or sometimes decades, it was important to engage in continuous fine tuning, upgrading, and optimizing the delivery routines to improve the performance of the solution over time. In addition, ongoing technological developments within the industry generated the potential for introducing innovative solutions that promote value creation. In particular, the increased use of digital systems and platforms allowed for more frequent updates and improvements to the software, which enabled higher performance. However, it is no less important to identify and select where improvement activities should be directed. Several informants described how they initiated different routines, such as meetings and joint problem sessions, in a systematic effort to detect problem areas and identify opportunities to improve solutions during operation. Improvements were also necessary to cope with changing market conditions. For example, increased taxation on emissions or energy costs as well as competitor actions triggered improvement initiatives. Several informants underscored the importance of making these discussions quite open and focused on solving problems, leaving financial discussions and agreements to another forum. A procurement manager at Minecorp (R5), the customer organization, described their approach:

> *We have joint technical meetings every quarter to discuss how our equipment is performing and what we can do to improve it. Typically, these are quite open discussions, and we are open about sharing ideas and information to enable both parties to contribute.*

In this phase, another key success factor in value capture consisted of activities related to *regulating incentive structures*. These activities were aimed at protecting the fairness of the current agreement by identifying any potential problem areas where one or both parties could become disadvantaged. This suggested that any business arrangement needed to evolve in step with ongoing developments within the market, the partners' internal organizations, and growing technological development to ensure fair and profitable relationships over time.

First, informants stated that *re-aligning incentives continuously* was of the outmost importance. Identifying and sanctioning opportunistic behavior within both organizations was the primary objective. Realigning incentives were also viewed as

important; informants disclosed that the goals and interests of the parties commonly diverge over time, which may lead to value co-destruction and a failed business model. For example, informants at Connectcorp referred to deals they had entered into where it became clear over time that the incentives were not aligned. In this case, the customer began to prioritize delivery to remote areas, thereby increasing the delivery costs but not the corresponding revenues. The result was an unprofitable relationship for the provider. Indeed, it was very hard to predict all contingencies when formulating contracts and, therefore, parties had to revise contractual details to ensure that goals were aligned. Fortunately, the trust that existed between the two parties facilitated this process. A business development manager from Connectcorp, the provider organization, described how aligned incentives contributed to a profitable relationship:

> *The contract entailed payment based on delivering a certain capacity. This meant that rewards or penalties were closely linked to achievement of the agreed KPIs. These kinds of risk and revenue sharing agreements provide incentives for good behavior and over time partners don't only behave well because of the contract but because a closer relationship has been developed. This is true for our long, successful relationships [with Telecorp].*

To enable value capture, informants underlined the necessity for *ensuring fair value distribution.* A key aspect here was to monitor the performance of the contract to ensure that both parties are profiting. Informants explained that such discussions were often organized on a regular basis between senior management, operational managers, and even shop floor staff from both providers and customers. Since fairness was not achieved automatically, it was critical for firms to evaluate the contract throughout the designated period to ensure that both parties obtained a fair distribution of profits over time. This was assured, for example, by contracting practices where early profits and losses are shared (e.g., gain/pain sharing agreements) in order to mitigate any uncertainty concerning operational outcomes over time.

The use of such arrangements was also viewed as part of a trust-building exercise, since both parties needed to fulfill the operational goals in order to profit. In particular, informants reiterated the need to make adjustments for technology or market shifts over an extended contractual period. For example, changes in the underlying technology could constitute a significant change in the previously agreed profit formula. Thus, such shifts required totally new negotiations on how the business model should be set up to create and capture value fairly between partners. Informants stated that, in a good relationship, the parties would try to be flexible and adapt to current realities to ensure fair mechanisms for value capture over time. A procurement manager from the customer organization, Minecorp (R5), exemplified how they ensured a fair value distribution:

> *When we signed the contract, we had projections on how much we expected the productively to be on a yearly basis but we expanded the mine, and we could see an opportunity to increase the productivity by 10%. In collaboration [with Equipcorp], we introduced some technological changes, which meant we could reach the new output requirement. It was quite easy to agree on terms with the supplier as we have a partnering approach in our collaboration so these profits will be shared with them.*

A Process Framework of Value-Creation and Value-Capture Alignment in Business Model Innovation

Based on the analysis, we propose a process framework for how business model innovation unfolds in provider–customer outcome-based service relationships (see Figure 2). The framework illustrates how providers and customers go through a three-phase process: value proposition definition, value provision design, and value-in-use delivery. In each phase, iterative cycles of value creation and value capture activities ensure successful alignment and progression to the next phase. Moreover, failure to fulfill the alignment, either because of the lack of relevant activities or because there is insufficient iteration, results in failure in the phase. In this sense, our model has an aspect of agile methodology in that both value creation and value capture are reiterated between the provider and customer. Table 4 presents the cross-case comparison of the six outcome relationships that support this framework.

In the following sections, we discuss these findings further and illustrate how firms manage alignment

Table 4. Illustrative Cross-Case Comparison of the Business Model Innovation Process—Activities and Outcomes

Relationship	R1	R2	R3	R4	R5	R6
Phase 1: Value proposition definition						
Identifying value creation opportunities (value creation)						
Exploring value-enhancement opportunities	Y	Y	Y	Y	Y	Y
Creating value proposition concept	Y	N	Y	Y	Y	Y
Agreeing on value distribution (value capture)						
Prioritizing win-win opportunities	N	N	Y	Y	Y	Y
Evaluating profit potential	N	Y	Y	N	Y	Y
Phase 2: Value provision design						
Designing the value offering (value creation)						
Customizing value architecture	–	–	Y	Y	Y	Y
Designing delivery process	–	–	N	N	Y	Y
Deciding on the profit formula (value capture)						
Assessing delivery risks	–	–	N	N	Y	N
Designing performance indicators	–	–	Y	Y	Y	Y
Phase 3: Value-in-use delivery						
Refining value creation processes (value creation)						
Developing operational capabilities	–	–	–	N	Y	Y
Exploring improvement opportunities	–	–	–	N	Y	Y
Regulating incentive structures (value capture)						
Realigning incentives	–	–	–	N	Y	Y
Ensuring fair value distribution	–	–	–	N	Y	Y
Outcome	F1	F1	F2	F3	S3	S3

Note: Legend: Y = activity sufficiently achieved, N = activity not sufficiently achieved. F1–3 = Failure in phases 1, 2, and 3, outcome-based service relationship cancelled. S3 = Success in phase 3, ongoing outcome-based service relationship.

between value creation and value capture over the three phases of business model innovation. Specifically, attention is devoted to the activities conducted by the parties to facilitate progression from one phase to the next (or not).

Phase 1—Value Proposition Definition to Ensure Alignment of Objectives

The business model innovation process of shifting to outcome-based service provision starts by defining the value proposition. In this phase, the provider and customer need to ensure alignment by simultaneously *identifying value creation opportunities* and *agreeing on value potential* in order to achieve clarity in their outcome objectives. Reaching jointly defined objectives necessitates uncovering the value creation potential through an open and creative problem definition and solution-seeking practice. For example, informants outlined how they, at an early stage, attempted to identify the "sweet spot" for collaboration by exploring value-enhancement opportunities with the customer (e.g., eliminating bottlenecks in operations). At the same time, it is equally important to begin with defining the value-capture potential and prioritizing opportunities so that both parties are positioned to profit. Thus, in practice, both providers and customers go through cycles of creation and capture activity. For example, the technical manager at Forestcorp (C) suggested that both value creation and value capture need to be considered in parallel from an early stage: "I think there always needs to be a balance between the scope of the solutions and how much value we can actually get from it. If there is not improvement on the bottom line what have you really gained?"

Provider–customer dyads that are able to find novel ways of creating value and to simultaneously agree on the potential for capturing value are in a position to move from the definition phase to the design phase. For example, during the early business model definition activities between Connectcorp and Telecorp (R6), we found that both sides worked toward establishing common objectives for the contract. However, only when the profit potential and commitment of key stakeholders was assured were the firms able to progress to the next phase and into more formal contractual discussions. Furthermore, our informants identified common sources of failure to properly define the value-capture dimensions (e.g., concrete estimates of potential gains in revenues/costs). For example, Minecorp and Equipcorp (R2) had been discussing a

totally new outcome-based business model building on innovative technology, but they failed to ensure value capture by neglecting such measures as evaluating profit potential and ensuring top management support from Minecorp. As a result, their progress to the design phase was halted when senior management at Minecorp perceived the contract to be highly risky and opted instead for traditional procurement of products and supporting services. Thus, we propose:

P1. Successful completion of Value proposition definition (Phase 1) and progress to Value provision design (Phase 2) requires alignment between activities to identify value-creation opportunities and activities to agree on value distribution.

Phase 2—Value Provision Design to Achieve an Aligned Agreement

The key to this phase is the alignment of activities related to *designing the value offering* and *deciding on the profit formula* to achieve a signed outcome-based service contract. The goal is to translate a novel outcome business model concept into a signed outcome contract that benefits both parties. A common set of activities in this phase would involve translating the initial (high-level) concept into a customized value architecture that directly meets the customer's outcome requirements. With a more detailed understanding of what the delivery of the value proposition would entail, parties here undertake a more in-depth evaluation and risk assessment of the agreement. This also facilitates further discussions on designing the delivery process (e.g., roles and responsibilities), which serves as an input to negotiating the agreement's profit formula (i.e., how revenues and costs are assigned). Therefore, there is a clear need for continuous iteration in aligning value-creation and value-capture activities. For example, a procurement manager at Minecorp suggested: "It always goes back and forth between co-developing and negotiating with the suppliers. As long as you can keep discussions positive, I think there is benefit to this way of working as you ensure that agreements are formulated to the interests of both parties."

Firms that manage to design feasible value offerings and decide on the profit formula for joint-value capture are able then to arrive at a signed outcome-based service contract to commercialize the business model. Failure in this phase occurs for two main reasons. First, there is the inability to translate value creation opportunities into a jointly agreed outcome agreement, and the failure to agree on performance indicators, roles, and responsibilities for solution delivery. Second, firms fail to ensure that the outcome-based service captures benefits for both parties, and that the revenue potential exceeds costs and risks. For example, Solutioncorp and Minecorp (R3) had been working on an intelligent solution for mine ventilation. However, discussion stalled in this phase because they were not able to agree on the cost structure and the revenue stream (i.e., profit formula). Basically, Solutioncorp's entire service organization was constructed to capture value by charging for service by the hour. Consequently, changing this profitable model was perceived as a risk rather than an opportunity. Thus, we propose:

P2. The success of value provision design (Phase 2) and the progress to value-in-use delivery (Phase 3) reside in the alignment between activities to design the value offering and activities to decide the profit formula.

Phase 3—Value-In-Use Delivery to Ensure an Aligned Outcome Partnership

Successful business model innovation does not stop with commercialization; it requires significant effort in delivering value-in-use to make the business relationship sustainable for both parties over time. In this phase, it is crucial that the actors ensure alignment by simultaneously *refining value creation processes* and *regulating incentive structures*. As we ascertained, outcome-based service agreements require parties to show commitment to the continuous improvement of their joint operations and outcome performance. To achieve this, successful relationships focus on the relationship itself rather than the contract, further ensuring that any imbalances in value capture are treated as a problem in need of a joint solution. Throughout this phase, firms tend to go through cycles, oscillating between creation and capture activities to ensure that the agreement is updated and aligned for the benefit of both parties. For example, Minecorp and Equipcorp (R5) had regular joint meetings to evaluate key performance indicators and search for improvements, enabling them to continuously refine the outcome. Expenditure incurred from implementing such improvements would simply be added to the cost-per-ton agreement already in place, thus ensuring fair

value capture mechanisms. On an overall level, capturing and creating value coevolved. As one respondent at Minecorp put it: "I think it is easy to see the relationship value here; when we increase output, they make more money and we make more money. Trust is important, but I think the key to success is that we also need to continue looking for valuable improvements."

Firms capable of ensuring continuous refinement in value creation as well as regulating the incentive structures over time are able to extend and renew the outcome-based service beyond the time frame of the initial contract. Moreover, failure to renew the contract is linked to an inability to achieve the value creation potential that was expected at the design phase or to a failure to adjust value capture mechanisms to changing circumstances where one party was exposed to an unfair proportion of risk or cost. For example, the contract between Machinecorp and Forestcorp (R4) was cancelled when Forestcorp realized that they were not deriving any benefits from the agreement. Although some discussion on possible changes to the agreement was undertaken, the parties were unable to agree on a satisfactory solution, and the agreement was dissolved. Thus, we propose:

P3. The success of the value-in-use delivery (Phase 3) and, therefore, the successful continuation of the outcome-based service resides in the alignment between activities to refine value-creation processes and activities to regulate incentive structures leads to renewal of the outcome-based service.

Discussion

Theoretical Contributions

We developed a process framework of business model innovation in the context of outcome-based service relationships. While previous models offered the provider perspective on business model innovation, we offer a dyadic perspective that encompasses both provider and customer (e.g., Chesbrough et al., 2006; Saebi and Foss, 2015; Visnjic et al., 2017). Building on the existing research on value creation and value capture, this article argues that successful business model innovation is based on the continuous alignment of value creation and value capture across phases instead of sequential steps of value creation first and value capture second. In doing so, the framework developed here extends business model innovation and servitization research in several ways.

First, we contribute by *developing a process framework for business model innovation for outcome-based services*. Prior literature has tended to view business model innovation as an outcome (Richter, 2013; Visnjic Kastalli et al., 2013) or has investigated its performance implications (Zott and Amit, 2007). But only a few studies have investigated the actual processes of business model innovation (Frankenberger, Weiblen, Csik, and Gassmann, 2013; Mezger, 2014). We offer an in-depth perspective on business model innovation and show that the phases (value proposition definition, value provision design, and value-in-use delivery) play a critical role in determining appropriate value creation and value capture activities throughout the process.

Second, this study shows that both value creation and value capture need to be considered simultaneously throughout the entire innovation process. Historically, literature has tended to view value creation and value capture in a sequential manner as separate processes or as a one-time activity for business model innovation (Lepak, Smith, and Taylor, 2007; Saebi and Foss, 2015). Our research extends the contributions made by several studies in the literature on servitization, which have outlined processes that describe how various forms of advanced services are developed and implemented within provider–customer relationships (e.g., Aarikka-Stenroos and Jaakkola, 2012; Sawhney, 2006; Sjödin et al., 2016, 2020; Tuli et al., 2007). For example, Tuli et al. (2007) have identified key phases and factors in solution effectiveness but do not relate these factors to the phases of business model innovation. Indeed, none of the above-mentioned studies has done so from the perspective of business model innovation, underplaying important dynamics between value creation and value capture—vital components that undergo significant revision in the shift to outcome-based service provision. In particular, the dominant focus in these prior studies seems to be on understanding how to create value rather than how to capture it (Chesbrough et al., 2018). By applying the business model innovation perspective, this study extends the servitization literature by emphasizing the value capture perspective and developing novel insights into the key activities, phases, and requirements for

value creation and value capture along the business model innovation process (Sjödin et al., 2016).

Third, this study contributes by *demonstrating the importance of alignment between value creation and value capture throughout the business model innovation process.* Essentially, we claim that business model innovation is not only about designing superior value-creation and value-capture processes but making sure that they are adapted and aligned to each other from initial conceptualization to ongoing commercialization. The importance of aligning value creation and value capture has been mentioned in recent business model literature (Foss and Saebi, 2018; Kranich and Wald, 2018; Ritter and Lettl, 2018). For example, Ritter and Lettl (2018) have suggested that aligning these elements can lead to business model optimization, and Kranich and Wald (2018) argue that firms need to focus on ensuring alignment of the business model elements during both design and implementation phases. However, none of the previous studies has presented any concrete insights into how alignment is achieved. We believe that our empirically grounded framework in the context of outcome-based service makes an important contribution, extending further the prior work that argues that the business model succeeds when its elements cohere and are suitably aligned (Foss and Saebi, 2018; Kranich and Wald, 2018; Ritter and Lettl, 2018). Results show that value creation and value capture are interdependent and should be considered in parallel to ensure alignment throughout the process. Specifically, this study shows that alignment needs to be assured in each phase of business model innovation. Moreover, achieving alignment within the phases requires iterative interplay in simultaneously aligning value creation and value capture processes. We provide a detailed processual description of how value creation and value capture objectives are (iteratively) aligned over the phases and the roles that the provider and the customer play in this (Appleyard and Chesbrough, 2017; Randhawa et al., 2016; Sjödin et al., 2016).

A related insight concerns misalignment as a cause of failure in different phases of business model innovation. As our results demonstrate, misalignment often occurs when firms miss key activities relevant to the specific phase of business model innovation. We argue that misalignment in the value creation and value capture processes may be the key reason why business model innovation continues to be a challenging undertaking and why it is, therefore, a key construct worthy of further study. Thus, the alignment of value creation and value capture may provide a particularly illuminating lens through which to study success and failure in innovation generally and in business model innovation in particular.

Fourth, this study contributes by *demonstrating the importance of continuous business model re-alignment over time* in the outcome-based service context. Indeed, much of the discussion in the BMI focuses on the design and development phases (e.g., Kranich and Wald, 2018) and under-emphasizes the need for continuous evaluation, innovation, and alignment in the actual operation of the business model. However, building on servitization literature authors such as Tuli et al. (2007) and, more recently, Reim et al. (2018), this study helps to recognize the importance of the post-deployment phase in ensuring profitable delivery of value-in-use. For example, Tuli et al. (2007) underscored the importance of viewing this phase as a continuous relationship, and Reim et al. (2018) showed that it is crucial to monitor and mitigate adverse customer behavior over the life of the contract. Nevertheless, a cohesive approach that untangles the key activities involved in managing the value creation/value capture dynamics of the provider–customer relationship over time has been lacking in prior research. This is of critical importance because many problems such as adverse behavior, operational problems, and unfair profit distribution can surface during the delivery phase (Reim et al., 2018; Sjödin et al., 2016). Accordingly, a key contribution of this study is showing how continuous adjustment and innovation is necessary for business model innovation if the goals of the provider–customer relationship are to be aligned over time. At its core, achieving business model alignment is a continuous practice and not a one-time activity. Thus, a cohesive approach to business model alignment requires both identifying the degree of alignment and monitoring the dynamics of misalignment over the life of the business model.

Fifth, we contribute by *recognizing the need for an open business model innovation perspective where the alignment of value creation and value capture is not solely a provider-centric requirement but a joint one*. While existing BMI emphasizes customer insights as triggers for business model innovation (e.g., Frankenberg et al., 2013), their role in directing business model innovation (e.g., by determining value

and appropriate payment conditions) is still underplayed. In contrast, the findings from this study demonstrate that continuous customer involvement is a baseline against which business model decisions should be tested and a point of reference to ensure alignment in how value is created, delivered, and captured. Admittedly, the importance of customer interaction has been emphasized in the servitization and B2B marketing literature (Aarikka-Stenroos and Jaakkola, 2012; Sawhney, 2006; Sjödin et al., 2016; Tuli et al., 2007). For example, Sjödin et al. (2016) focused specifically on investigating role ambiguities in customer–provider relationships and Tuli et al. (2007) explored critical activities from the customer perspective but did not investigate the interactive processes and how these activities are jointly managed. However, our study shows that customer involvement in business model innovation for outcome-based services is more interactive and open than in the traditional product-centric setting because the customer actively participates with the provider in the co-production of the service offering. This form of open operation (Sjödin et al., 2017) calls for an open business model (Chesbrough et al., 2006; Saebi and Foss, 2015) and a relational view (Dyer et al., 2018) built on agile co-creation (Sjödin et al., 2020) between partners and the development of mutual trust to ease the transfer of tacit knowledge across organizational boundaries.

Managerial Contribution

Our findings offer several important insights into for managers involved in business model innovation processes for outcome-based services within a B2B industrial setting.

- *Consider both value creation and value capture simultaneously throughout the business model innovation process*. For example, a common practice is to focus on what value can be generated (i.e., value creation) before any discussion of contractual details takes place (i.e., value capture). While our findings confirm the general principle of not getting mired in detailed negotiations at an early phase, we also find that considering the value distribution (i.e., win-win) from the start is a key requirement for successful business model innovation for outcome-based services. Thus, while the scope and level of detail involved may change as the process progresses, both value creation and value capture should be dealt with simultaneously.
- *Make conscious efforts to align value creation and value capture*. Thus, it is not enough to merely consider these elements throughout the process—managers must actively ensure that the various elements are aligned at each phase of business model innovation. For example, in R4 the provider and customer managed to sign a contract without fully considering the alignment of vital value-creation and value-capture activities in the design phase. The result was a contract that failed to deliver value-in-use from the start and was quickly discontinued. It was clear that the business model was misaligned and the customer was vocal in expressing discontent. Thus, alignment of value creation and value capture is not a checkbox of activities for each phase; it is a vital foundation for building a profitable customer–provider relationship.
- *Re-align and continuously innovate the business model with ongoing changes in the environment.* It is important to underline this point since profitable relationships can quickly turn unprofitable as circumstances change (Reim et al., 2018). Outcome-based services is not a tool by which customers can shift responsibility to the provider and seek to avoid the effort and time associated with good governance and performance delivery. It is an operational model that requires a strong customer and provider relationship, trust, and a genuine sharing of risk and reward. Managers should regularly evaluate the business model to ensure that the greatest value is created and captured over the life of the relationship. It is not only about what is in the contract but how far the collaboration can be taken. How can we improve the relationships? What can create greater value? How can we ensure a fairer distribution of profits is a question that should be asked and discussed in regular meetings between the senior management and operational staff of both providers and customers.

Limitations and Future Research

This study relies on in-depth case studies of business model innovation in six outcome-based service relationships operating in complex B2B settings in the manufacturing, telecommunications, and process industries. While our results are garnered in the specific

context of B2B outcome-based service provision, we posit that these findings are still highly relevant to inspire other forms of business model innovation. Nevertheless, it is important to stress that the findings should be considered applicable primarily to B2B contexts characterized by similar conditions. For example, business model innovation for an outcome-based service for consumers (B2C) would probably use a somewhat different process as the scale, complexity, and risk are likely to be different. Although the empirical basis for our conclusions is rather broad, we appreciate that future work on business model innovation could test the boundary conditions of our framework, depending on cultural differences, types of industry, and kinds of relationship.

We believe that the current approach of studying value-creation and value-capture alignment in business model innovation provides a highly beneficial avenue for further research. For example, the present study suggests further research questions regarding the alignment of value creation and value capture and how these unfold as relationships mature. In particular, the current study has only begun to scratch the surface of the roles, mechanisms, and practices through which alignment is achieved. Furthermore, we strongly encourage future studies to explore not only cases of success but also failure in the innovation management and business model innovation domain. In addition, focusing on other underlying conditions for outcome-based services—such as capabilities, prior relationships, and transaction costs—could provide relevant insights. Furthermore, different types of business models—and the conditions under which each is the most appropriate route to go down—merit further examination. How different types of solution manifest themselves in appropriately aligning value creation and capture are of primary interest. For example, what are the benefits and trade-offs of various configurations? In particular, examining the effects of such arrangements on multiple levels—organizational, relational, and individual—would seem to be a fruitful line of inquiry (Lenka, Parida, Sjödin, and Wincent, 2018), given the increased emphasis on business models and outcome co-creation relationships in current industry practice.

Finally, we acknowledge that business model innovation extends beyond dyadic relationships involving multiple ecosystem actors (Parida et al., 2019). Network perspectives by multiple partners may also be a fruitful line of investigation. Exploring the emergence of business models through co-creation among different network actors (e.g., providers, service delivery partners, and customers) could provide interesting multiactor perspectives for future business model research. These types of networked perspective seem to be especially prevalent given the ongoing digital transformation of the industry.

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